

# **Refactoring human roles solves systems problems**

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decoupling roles creates industries

the software industry  
decoupled

*user from software developer*

# two new roles

- hardware wrangler
  - purchases, powers, networks, and repairs hardware
- software integrator
  - integrates independent software components, applies security patches

	user	hardware wrangler	software integrator
developer	software industry	scale-up vs. scale-out	vertical service integration
software integrator	DLL hell, shared config	one-off data centers	
hardware wrangler	kiosks, dead hard disks		